2019
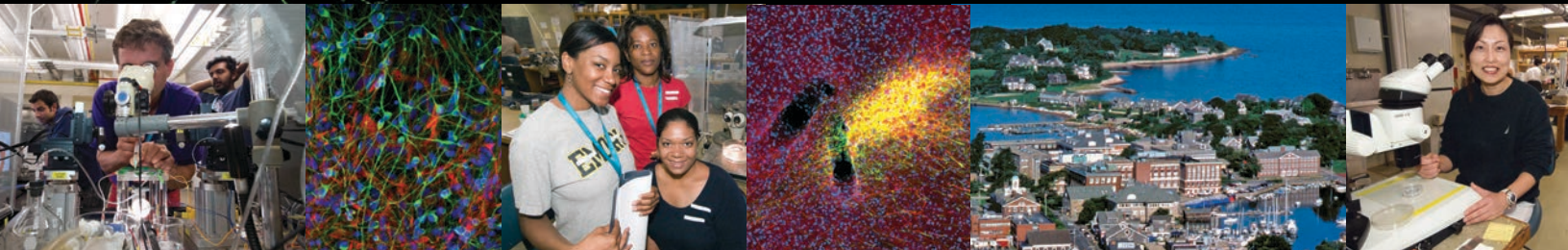# Advanced Research Training
NEUROSCIENCE

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Allen Institute for Brain Science

The **Marine Biological Laboratory** in **Woods Hole, MA** is world renowned for its advanced training courses for pre- and postdoctoral trainees. These are intensive, full immersion, hands-on courses that involve discovery based research using cutting-edge equipment generously loaned by top notch scientific equipment vendors. Students live on the MBL campus and interact with a vibrant, collaborative research community across disciplines that builds networks for life. MBL welcomes all people, regardless of gender, ethnicity, race, sexual orientation, religion, or country of origin. We are committed to developing a diverse scientific and academic workforce.

Taking an MBL course is transformative.

Neurobiology: Mechanisms & Advanced Approaches
June 11-August 3; application deadline February 1
Trains the next generation of neuroscientists to investigate mechanisms of neuron and circuit function in health and disease. Students design and perform studies using state-of-the-art electrophysiological, optical and genomics approaches. Computational training in bioinformatics and quantitative analysis of large data sets. Focus on emerging concepts in neuroscience, innovative technologies, and powerful model organisms.

Neural Systems and Behavior
June 1 - July 28; application deadline February 1
Provides broad training in modern approaches to the study of neural mechanisms underlying behavior, perception, and cognition. Students investigate a diverse array of model systems at the molecular, cellular, and organismal levels using electrophysiology, optical methods, computational and behavioral analyses, and molecular genetics.

Summer Program in Neuroscience, Excellence and Success
June 14 - July 5; application deadline March 8
Produces the leaders of a diverse scientific workforce in neuroscience by integrating research with quantitative analysis, professional skills, and mentoring. Focuses on creating inclusive environments in science and academia that promote success, particularly of individuals from underrepresented groups.

Methods in Computational Neuroscience
July 29 - August 24; application deadline March 19
Introduces students to the computational and mathematical techniques that are used to address how the brain solves problems at levels of neural organization ranging from single membrane channels to the whole brain.

Brains, Minds, and Machines
August 8 - August 29; application deadline April 8
The synergistic combination of cognitive science, neurobiology, engineering, mathematics, and computer science to build more robust and sophisticated algorithms for artificial intelligence.

"MBL was definitely one of the most transformative and enjoyable experiences of my scientific career."

Substantial financial assistance is available.

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